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**BULLETIN OF THE  
NEW HAVEN YMCA  
JUNIOR COLLEGE**

**1943-1944**

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*Through the courtesy of Yale University, the Junior College is permitted to use the excellent facilities in Sheffield Scientific School, including such buildings as Winchester Hall pictured above.*

## ADMINISTRATIVE OFFICES

*Financial and Alumni Office*

YMCA, 52 Howe Street . . . Telephone 8-3161

*Director, Registrar, and Admissions Offices*

Winchester Hall, 15 Prospect Street . . . Telephone 7-3131, Ext. 532

## OFFICE HOURS

YMCA, 9 A.M. to 5 P.M.

Saturday, 9 A.M. to 12 Noon

Winchester Hall, 9 A.M. to 5 P.M.

Saturday, 9 A.M. to 12 Noon

7 P.M. to 9 P.M.



# **NEW HAVEN YMCA JUNIOR COLLEGE**

## **BULLETIN, 1943-1944**

*Accredited by the Connecticut State Department of Education,  
Member of American Association of Junior Colleges.*



**24th Year**

**EVENING SESSIONS**

**COEDUCATIONAL**

**NEW HAVEN**

**CONNECTICUT**



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# CALENDAR 1942-43 and 1943-44

## Spring and Summer 1943

### First Semester

Registration period closes .....	Saturday	March 27
Freshman orientation program .....		March 29-30
Classes begin .....	Wednesday	March 31
Good Friday—holiday .....	Friday	April 23
Memorial Day—holiday .....	Monday	May 31
Examinations begin .....	Wednesday	June 2
Examinations end .....	Tuesday	June 8
Recess .....		June 9-24

### Second Semester

Classes begin .....	Friday	June 25
July 4—holiday .....	Monday	July 4
Examinations begin .....	Monday	August 30
Examinations end .....	Friday	September 3
Recess .....		Sept. 4 - Oct. 3

## Fall and Winter 1943-44

### First Semester

Registration period closes .....	Saturday	September 25
Freshman orientation program .....		September 28-30
Classes begin .....	Monday	October 4
Thanksgiving day—holiday .....	Thursday	November 25
Examinations begin .....	Monday	December 6
Examinations end .....	Friday	December 10
Christmas recess .....		Dec. 13 - Jan. 2

### Second Semester

Classes begin .....	Monday	January 3
Washington's Birthday—holiday .....	Tuesday	February 22
Examinations begin .....	Monday	March 6
Examinations end .....	Friday	March 10

## Spring and Summer 1944

### First Semester

Registration period closes .....	Saturday	March 25
Freshman orientation program .....		March 28-29
Classes begin .....	Monday	April 3
Good Friday—holiday .....	Friday	April 7
Memorial Day—holiday .....	Tuesday	May 30
Examinations begin .....	Monday	June 5
Examinations end .....	Friday	June 9
Recess .....		June 10-25

### Second Semester

Classes begin .....	Monday	June 26
July 4—holiday .....	Tuesday	July 4
Examinations begin .....	Monday	August 21
Examinations end .....	Friday	August 25

## BOARD OF GOVERNORS

FLOYD I. NEWTON, <i>Chairman</i>	Secretary and Assistant Treasurer, G. & O. Manufacturing Company
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SAMUEL W. DUDLEY	Dean, School of Engineering, Yale University
STUART W. FINLAY	Day, Stoddard and Williams, Incorporated
HENRY P. HASS	Assistant Superintendent, Mechanical Department, New York, New Haven & Hartford Railroad Company
GEORGE S. HAWLEY	The Fritz & Hawley Company
CLYDE M. HILL	Chairman, Department of Education, Yale University
FORREST R. HUGHES	Representative of the Faculty
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JOHN R. MCCURDY	General Secretary, Young Men's Christian Association
WILLIS H. PRATT, JR.	Supervisor, Plant Training, The Southern New England Telephone Company
HOWARD G. SPENCER	Supervisor, Cashier's Department, Connecticut Plan for Hospital Care
BULKELEY SMITH	Vice-President, American Tube Bending Company
COLEMAN S. WILLIAMS	Assistant to the Works Manager, Winchester Repeating Arms Company

## EXECUTIVE COMMITTEE

FLOYD I. NEWTON, <i>Chairman</i>	CLYDE M. HILL
SAMUEL W. DUDLEY	ELLIS C. MAXCY
STUART W. FINLAY	JOHN R. MCCURDY

## TRUSTEES

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FRANK A. BRAINERD	ELLIS C. MAXCY
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WILLIAM G. CLEAVER	FREDERICK W. ROBERTS
WALTER E. CRITTENDEN	CLARENCE P. SHEDD
CLARENCE W. CROOK	CARLETON G. SMITH
FRED J. DAWLESS	RALPH L. WOODWARD

## ADMINISTRATIVE STAFF

LAWRENCE L. BETHEL .....	<i>Director</i>
J. WATSON WILSON .....	<i>Associate Director</i>
CLAUDE W. FAWCETT .....	<i>Associate Director</i>
Engineering, Science, and Management War Training	
HENRY W. LITTLEFIELD .....	<i>Industrial Coordinator</i>
JULIA M. STOCKOVER .....	<i>Registrar</i>
KATHARINE BLENIS .....	<i>Secretary to the College, Director of Placement</i>
MARGARET W. MENDILLO .....	<i>Supervisor of Clerical Staff</i>
ELLIN L. QUINN .....	<i>Clerical Assistant</i>
RHODA E. GINTER .....	<i>Clerical Assistant</i>
A. EDWINA KENNEY .....	<i>Clerical Assistant</i>

## FACULTY ADVISORY COMMITTEE

FRED J. BECK	FORREST R. HUGHES
DWIGHT C. ECKERMAN	FREDERIC W. KEATOR
FREDERICK F. FISCHER	EGBERT J. MILES
THOMAS ROBERTSON	

## FACULTY SCHOLARSHIP COMMITTEE

EGBERT J. MILES, <i>Chairman</i>	FREDERICK F. FISCHER
C. E. BOOTH	GEORGE R. TIERNAN

## COMMITTEE ON MILITARY SERVICE

J. WATSON WILSON, <i>Chairman</i>	MAURICE B. TRACY
LAWRENCE L. BETHEL	GEORGE R. TIERNAN
CARL R. HANCEY	RICHARD B. HUDSON
JULIA M. STOCKOVER	

## FACULTY

### For the College Year 1942-43

BECK, FRED JOHN, JR.	<i>Electricity, Senior Problems</i>
Ph.D., Yale University; Assistant Professor, Department of Electrical Engineering, Yale University.	
BELSHE, FRANCIS B.	<i>English</i>
A.B., Missouri State Teachers College; Yale University.	

## FACULTY

BETHEL, LAWRENCE L. *Director*  
 B.S., Central Missouri State Teachers College; M.A., Columbia  
 University; Ph.D., Yale University.

BLNIS, KATHARINE *Secretary to the College, and Director of Placement*  
 A.B., New York State College; B.S., Simmons College.

BOARD, SAMUEL S., JR. *Machine Design*  
 B.E., Yale University; Methods Production Control Engineer,  
 Farrel-Birmingham Company, Inc.

BOOTH, C. E. *Engineering Problems*  
 Ph.B., Yale University; Chief Engineer, Brock-Hall Dairy  
 Company.

BRICK, ROBERT M. *Senior Problems*  
 Ph.D., Yale University; Instructor in Metallurgy, Yale University.

BROOKS, FREDERICK E., JR. *Electricity*  
 B.S. in E.E., University of Kansas; Yale University.

CARLSON, BENGT G. *Mathematics*  
 A.S., Stockholm University; B.S., M.S., Yale University; In-  
 structor, Yale University.

COBEY, DONALD E. *Law*  
 B.A., LL.B., Yale University; Attorney-at-Law, Stoddard,  
 Persky and Eagan.

CONKLING, GEORGE J. *Accounting*  
 A.S., New Haven YMCA Junior College; Assistant to Chief  
 Accountant, Department of Public Works, State of Connecticut.

DAWLESS, FRED J. *Marketing, Sales*  
 Manager, New Haven Branch, Crucible Steel Company of  
 America.

ECKERMAN, DWIGHT C. *English, Public Speaking*  
 B.A., Monmouth College; M.A., Yale University.



## FACULTY

FAWCETT, CLAUDE W. *Associate Director*  
A.B., Southwest Missouri State Teachers College.

FELLERS, RUFUS G. *Electricity*  
B.S. in E.E., University of South Carolina; Yale University.

FISCHER, FREDERICK F. *Accounting*  
B.C.A., Northeastern University; C.P.A., State of Connecticut;  
Public Accountant.

GRANT, JOHN B. *Law*  
B.A., LL.B., Yale University; Attorney-at-Law, Watrous, Gumbart and Corbin.

HILLMAN, M.M., M.D. *College Physician*

HUDSON, RICHARD B. *English*  
A.B., Wabash College; A.M., University of Southern California;  
Yale University.

HUGHES, FORREST R. *Engineering Problems*  
B.S., C.E., University of Missouri; Assistant Professor of Engineering Drawing, Yale University.

KEATOR, FREDERIC W. *Power Plants, Mechanics*  
B.S., University of Washington; M.E., Yale University; Assistant Professor of Mechanical Engineering, Yale University.

KEPPEL, ROBERT C. *Assistant in Economics*  
A.S., New Haven YMCA Junior College.

KOSSACK, CARL R. *Mathematics*  
B.S., M.A., Yale University; United States Post Office.

KRAUSS, HERBERT L. *Electricity*  
B.S. in E.E., University of Kansas; M.E., Yale; Instructor in Electrical Engineering, Yale University.

LEHNDORF, PETER, M.D. *College Physician*

## FACULTY

- LITTLEFIELD, HENRY W. *Industrial Coordinator, Social Problems*  
B.S., M.A., New York University; Ph.D., Yale University.
- MILES, EGBERT J. *Mathematics*  
Ph.D., University of Chicago; Associate Professor of Mathematics, Yale University.
- OLSON, DONALD R. *Mechanics*  
B.S., Oregon State College; Yale University.
- ROBERTSON, THOMAS *Engineering Drawing*  
Pratt Institute; Consulting Engineer, Westcott and Mapes, Inc.
- ROHSENOW, WARREN M. *Strength of Materials*  
B.S. in M.E., Northwestern University; M. Engr., Yale University.
- SHELDON, HAROLD W. *Accounting*  
A.B.A., New Haven College; C.P.A., State of Connecticut; Public Accountant.
- SMITH, GEORGE H. E. *Economics*  
M.A., LL.B., University of Michigan; Economist, Writer.
- SPITZER, CHARLES F. *Physics*  
B.S., Swarthmore College, Yale University.
- STOCKOVER, JULIA M. *Registrar*  
B.A., Mount Holyoke College.
- TIERNAN, GEORGE R. *Law*  
B.A., Yale University; LL.B., Cornell University; Attorney-at-Law.
- TRACY, MAURICE B. *Personnel Administration*  
B.S. in E.E., Armour Institute of Technology; Personnel Department, General Electric Company.
- WESTON, ROLFE A. *Accounting*  
B.A., Dalhousie University; Certified Public Accountant, State of Connecticut; Member of American Institute of Accountants; Public Accountant.

## FACULTY

- WIGHTMAN, ARTHUR S. *Mathematics*  
Yale University.
- WILSON, J. WATSON *Associate Director, English*  
A.B., Muskingum College.
- ZWEIG, FELIX *Electricity*  
B.S., Yale University; Instructor in Electrical Engineering, Yale  
University.

## FACULTY OF PRE-COLLEGE DEPARTMENT

For the College Year 1942-43

- CHISHOLM, EVERETT A. *Mathematics*  
B.A., Dartmouth College.
- GALLUP, MELBOURNE J. *Social Science*  
B.S., University of Vermont.
- MERRIAM, ALBERT C. *Mathematics*  
B.A., Wesleyan University.

# **New Haven YMCA Junior College**

## **GENERAL INFORMATION**

### **History and Development**

In response to the interest and demand for educational courses in the period following the termination of the World War the Young Men's Christian Association of the City of New Haven organized vocational courses under its educational department. It became apparent that this desire for adult education was a permanent trend, and an educational program was organized in 1920 as the New Haven Division of Northeastern University. This program continued until 1926 when the officials of the New Haven Young Men's Christian Association were granted permission by the State to incorporate the institution as New Haven College. In 1935, the New Haven College program of studies in Engineering, Accounting and Business Administration was accredited by legislative act of the State of Connecticut and authority granted to confer the Associate in Science degree. The institution is now known as the New Haven YMCA Junior College. During the twenty-three years of its growth the college has developed two major departments—the Engineering Department, and the Department of Accounting and Business Administration; and a third department offering additional preparation for admission to college.

### **Co-operation of Yale University**

The continued growth of the program of the College is greatly facilitated by the generous co-operation of Yale University. All classes are held in various buildings of the Sheffield Scientific School. Laboratories, recitation and study rooms are made available for the use of the students of the College in the Dunham Laboratory of Electrical Engineering, Winchester Hall, Sheffield Administration Building, and North Sheffield Hall.

The faculty of New Haven YMCA Junior College is composed of men selected from the faculty of Yale University and from the industrial, commercial and educational life of New Haven. The College has been aided considerably by the counsel and suggestions of the officials of the Sheffield Scientific School who have taken a sympathetic interest in the program and work of the College.

## GENERAL INFORMATION

### Library Facilities

A library of reference and miscellaneous works is housed in Room 114 of Winchester Hall.

The technical libraries of the School of Engineering and of the Department of Applied Economic Science and Industrial Administration of Yale University are made available to students by application to the Director of the Junior College.

Under special circumstances the Sterling Library of Yale University is open to students working on research problems. This library may be used regularly by students upon the payment of the usual fee charged for this service to those not enrolled in the University.

Attention is called to the resources of the New Haven Public Library and its branch libraries about the city.

### Community Resources

New Haven YMCA Junior College is particularly fortunate to be located in a center which is rich in a variety of resources for education. Every attempt is made to utilize these resources by field and inspection trips. Speakers on special subjects are secured to bring to the students actual practice as it is being carried on.

### Work-Study Co-operation

Growing out of the crisis created by the last World War, New Haven YMCA Junior College was established to aid the rehabilitation of members of the American Expeditionary forces. Through the years its function has changed. More recently the College has developed a co-operative Work-Study Program. Recognizing that learning is not a process confined to the class room, the College has attempted to coordinate the work experiences of its students. Beginning with men who are employed on full-time jobs, the College has attempted to organize evening educational experiences which will take notice of the student's job as well as his study. The present crisis has intensified the co-operative relationship of the College with industry.

New Haven YMCA Junior College does not purpose to impose a pattern of co-operation. Rather, each company is encouraged to discover the kind of co-operation which will facilitate the education of its employees. Eighty companies, which employ 80 per cent of the Junior College stu-

dents, have appointed official Work-Study coordinators who co-operate with the College in selecting students and in planning student study programs. In addition, companies are expressing their interest in the co-operative program: by developing in-service training programs which are coordinated with College study, by eliminating or reducing overtime, by providing counseling service on the job, by providing confidential information concerning future plans for the student in the company. This list is by no means exhaustive, but it is indicative of the fourteen different patterns of co-operation which have been developed.

In keeping with the program of co-operation which has been outlined, the Junior College assumes the responsibility of continuously supplying to co-operating companies information concerning the progress of students enrolled in the college. In addition to periodic reports concerning individual students, the College makes a practice of sending the students' grades and comments by faculty members to all companies, unless the student can show evidence as to why such information should be withheld.

### Recognition

The College is approved by the Department of Education of the State of Connecticut, and by The American Association of Junior Colleges. It is also recognized by many colleges and universities. This recognition is important both to the student who continues his education after completing the junior college program, and to the student who finds it necessary to transfer before finishing his course.

The number of men and women who are attending classes upon the recommendation of their employers indicates a recognition of the value of the school's program to industry. This encouragement is emphasized in some industries by a definite policy of assuming a portion of the tuition costs incurred by employees. Further recognition is given through the apparent willingness of industry to rely upon graduates of the College for major responsibilities.

### Programs Offered

The programs of study offered by New Haven YMCA Junior College have been designed to meet the varying needs of men and women in business and industry.

The Department of Accounting and Business Administration offers courses that are of interest both to the high school graduate who is planning to enter the business field, and to men and women already in business who feel the need for bringing their methods up to date. Attention is directed

## PROGRAMS OFFERED

to the work of the accountant and the administrator rather than to that of the clerk and office assistant.

The Engineering Department offers technical courses designed to give an adequate background in theoretical work. It supplies also a variety of practice and experimentation in the operating and testing of machinery and apparatus for manufacturing, building, power and transportation purposes. Through this instruction, correlated with class work, the student obtains an appreciation of the possibilities and limitations which determine efficient design, production and management in industry. Study in the engineering field is focused on the work of the engineer rather than the technical skills of the tradesman.

In all courses, an attempt is made to furnish a background for creative enterprise rather than drill in specific technical routines.

*Three-year Programs of Study Are Offered in the Fields of:*

Accounting  
Business Administration  
Electrical Engineering  
Industrial Engineering  
Mechanical Engineering  
Sales and Service Engineering

The work in these three-year programs of evening study represents the central portion of similar courses of study offered in a standard day college.

The time required to cover the subjects listed in these three-year programs may be shortened by (1) carrying additional hours, (2) establishing advanced standing as a result of having completed approved courses in other institutions.

Upon consultation with the Director, students may be permitted to choose a limited number of their elective courses from fields outside the one in which they are specializing.

## Unit Courses

There are many cases where the pursuit of a single course of study may be of considerable value. Accordingly, provision has been made whereby a student, if qualified, may enroll in unit courses, under the conditions outlined on page 16.

The college reserves the right to withdraw courses for which there is insufficient enrollment.



### Time of Classes

All classes meet in the evening from 7:15 to 9:35. Students following the programs as outlined on pages 26, 28 and 29 attend classes three evenings each week.

### Registration

Formal application for admission must be made through personal interview with officers of the administration not later than September 25. Last year the College enrolled a total of 450 men and women, and although there are no limitations to the number admitted, registrations are closed several days before the opening of school to allow time for establishing the required number of sections. To make it possible for the instructors to give individual attention to each student, the number of students in each section is held within an established maximum.

### Admission

The College accepts for admission any man or woman, regardless of color, race, or creed, who is able to qualify by previous education.

Minimum standards of achievement in previous educational work conform to the general policy of college certification. In considering the qualifications of an applicant, however, emphasis is placed on success in high school subjects that are particularly essential for the type of work which is to be followed in college. For example, one of the prerequisites for admission to the Department of Engineering is a good foundation in mathematics and science.

In instances where it is felt that the student is not adequately prepared to carry college work in the department of his choice, additional pre-college preparation may be required. This may be obtained through the pre-college department of the college or in any other approved preparatory or secondary school. At the completion of the recommended pre-college preparation, an applicant may again present his credentials for appraisal.

At the time of admission, attempts are made to discover the interests and needs of the individual student in order that his program of studies may be so arranged as to permit the greatest possible progress and achievement. For this reason, a personal interview is required before admission can be approved.

The New Haven YMCA Junior College makes no set prescription of "unit patterns" of high school subjects as an entrance requirement. However, the college aims to admit only those students whose previous prepara-

## ADMISSION

tion qualifies them to pursue the college studies to which they may be admitted. The following outlines of desirable high school subjects for purposes of admission to the Junior College may be helpful:

<i>For Admission to the Department of Engineering:</i>		<i>For Admission to the Department of Accounting and Business Administration:</i>	
English .....	3 units	English .....	3 units
Algebra .....	2 units	History and Social Science..	2 units
Geometry .....	1 unit	Mathematics .....	1 unit
Physics or Chemistry .....	1 unit	Additional academic sub-	
Additional academic sub-		jects not less than .....	4 units
jects, not less than .....	5 units	Vocational subjects not	
Vocational subjects, not		more than .....	5 units
more than .....	3 units		
	<hr/> 15 units		<hr/> 15 units

Under exceptional circumstances, admission may be arranged on a conditional basis.

Students who desire to pursue a three-year curriculum, but are unable to qualify, are urged to remove their deficiencies by further preparatory study, rather than seek admission as unclassified students.

Credit for advanced standing may be given for work completed in other approved colleges and universities, if such work is similar in content and character to corresponding courses in New Haven YMCA Junior College.

### Unclassified Students

It is recognized that many men and women, who desire to take one or more subjects offered by New Haven YMCA Junior College, are not interested in following an established curriculum and becoming candidates for the degree. They may be admitted as unclassified students.

Requirements for admission to separate subjects will vary in accordance with the subject matter covered. Students applying for unclassified admission are required to submit evidence of ability to carry the work for which they wish to register. Any who do not meet the admission requirements and/or present the prerequisites of the subject for which they wish to register may be accepted under special conditions. In addition to presenting their applications to the Director or the Associate Director for approval, they may be asked to pass qualifying examinations and/or receive permission from the instructors of the classes they wish to enter.



Parallel to counseling service provided by industrial coordinators is the individual assistance given to students by the faculty and administrative staff. Dr. Lawrence L. Bethel, director of the college, interviews a student (above). Few classes have more than fifteen students.

Below, is a calculus class taught by Dr. E. J. Miles, Yale University, and at the right a class in sales and advertising taught by Fred J. Dawless, New England Manager of the Crucible Steel Company of America.







Basic for students studying mechanical engineering is a course in Machine Design. All drawing classes as the one pictured above, meet in the laboratories of Winchester Hall, Yale University.

Mechanical engineering classes meet in Mason Mechanical Engineering Laboratory, Yale University. In the picture below, a class in Machine Design is applying theoretical principles to practical problems.



Dunham Laboratory of Electrical Engineering, Yale University, pictured above, provides excellent facilities for engineering students.

Unclassified students who meet the admission requirements may matriculate as regular students and candidates for the degree. Application to matriculate must be made prior to the registration for the technical courses of the junior year.

The College reserves the privilege of limiting the number of unclassified students accepted in any one year or for any one class. It also reserves the right to ask for the withdrawal of any student whose scholastic performance does not meet the accepted standards.

### Health Examinations

A health examination by the College physician is required of each student who is admitted to the College if he is enrolled for more than one subject. A returning student, who has been previously enrolled for one subject, will be required to have the health examination whenever he may enroll for two or more subjects. After the first year, the privilege of an annual examination is extended to those desiring it. A fee of \$2, which is payable to the college when the application for admission is presented, is charged to defray part of the cost of the examination; the balance of the expense is met by the College.

If treatment is found necessary, the student is advised to consult his family physician. In cases where the need for X-rays or tests not included in the general examination is indicated, they are recommended and a nominal charge is made.

Appointments for the examination are made through the College office.

### Orientation of Students

In order that new students may have an opportunity to become acquainted early in the year with their fellow students and faculty members and learn something of the student activities of the College, a freshman outing is held early in the school year. A program including sports, outdoor cooking, and informal discussions is conducted by student council members.

Throughout the year, the orientation committee of the Student Council functions with the administration in sponsoring programs and making available information intended to facilitate the social and educational adjustments of all students.

## **FEES**

An entering student has a distinct advantage if he begins his college work knowing what he wants to do and what course of study he must follow to achieve his goal. The faculty and administration are anxious to advise students in forming and evaluating such programs of study and are constantly available for such consultation.

The type and quality of a student's high school work, his achievement in college, and his business and industrial experience are all valuable bases of judgment in evaluating his choice of program. As an additional aid, the College requires all students to take general achievement and diagnostic examinations. All grades attained in these examinations are confidential.

## **FEES**

### **Registration Fee:**

A fee of \$3 is required of each student registering for the first time in credit courses. This fee is refunded only if a student is refused admission.

### **Health Examination Fee:**

A fee of \$2 is required of entering students. See page 17.

### **Student Fee:**

The Student Council authorizes each year the collection of a nominal fee from each student in order to maintain the *News*, the school newspaper, and to provide funds for the operation of scheduled student activities.

### **Special Fees:**

Examination Fee: \$1.00. This fee is charged for each

Make-up examination

Special examination

Admission examination given other than during the regularly scheduled period.

Diploma Fee: \$10.00.

### **Tuition:**

Rate: \$22.00 per semester for courses carrying 2½ semester hours credit.

Deferred charge: \$1.00 per semester.

**Cash Plan:**

Tuition fees for each semester are as follows:

	5 sem. hrs.	2½ sem. hrs.
Due when semester begins* .....	\$17.50†	\$ 9.50†
Due on or before date of second payment* .....	27.00	13.00
	<hr/>	<hr/>
	\$44.50	\$22.50

\* See schedule below for dates.

**Schedule of Tuition Payment Dates****Deferred Plan:**

The tuition rate per semester on the deferred plan is \$45.00 for two subjects and \$23.00 for one subject. It is payable as follows:

*Spring 1943*

	5 sem. hrs.	2½ sem. hrs.
March 27 .....	\$17.50†	\$ 9.50†
April 21 .....	14.00	7.00
May 12 .....	14.00	7.00

*Summer*

June 25 .....	17.50†	9.50†
July 16 .....	14.00	7.00
August 6 .....	14.00	7.00

*Fall*

September 25 .....	17.50†	9.50†
October 22 .....	14.00	7.00
November 12 .....	14.00	7.00

*Winter 1944*

January 3 .....	17.50†	9.50†
January 21 .....	14.00	7.00
February 11 .....	14.00	7.00

*Spring*

March 25 .....	17.50†	9.50†
April 14 .....	14.00	7.00
May 5 .....	14.00	7.00

*Summer*

June 26 .....	17.50†	9.50†
July 14 .....	14.00	7.00
August 4 .....	14.00	7.00

† Not refundable. Includes student fee.



## SCHOLARSHIPS

### Withdrawal

In the event of withdrawal from college because of illness, a change in working hours necessitating evening employment, or removal from the community, tuition cancellations will be made as of the first of the following payment period. Tuition refunds to those paying in advance will be made on the basis of deferred payment charges.

All students whose applications have been accepted will be considered members of the College and liable for tuition, until they have notified the office in writing of their intention to withdraw.

### Student Loan Funds

The College has been the recipient of gifts from individuals interested in assisting students. Some of these gifts have been especially designated as revolving loan funds, which now constitute several hundred dollars.

The purpose of the loan fund is to assist students who have attended the college for at least one semester. A limited portion, however, is available for students entering the College for the first time. The fund is administered by a committee of the faculty in accordance with policies established by the Board of Governors of the College.

Application should be made to the Director.

### Scholarships

A scholarship amounts to approximately one-half the tuition. An award, made for the first semester, is usually renewed the second semester upon the satisfactory performance of the student. A few scholarships are made available to first-year students.

Applications should be presented well in advance of the beginning of the school year. Awards are decided by the Committee on the qualifications presented. Indication of the ability to profit from the course of study to be followed is a determining factor.

The Foremen's Club of New Haven annually appropriates a fund to be used to aid employees of industrial firms of New Haven to further their education. From two to four scholarships are awarded each year.

The Alumni Association of the College makes available a scholarship to one student annually.

A General Scholarship Fund amounting to four hundred and fifty dollars a year is awarded to students who make application.

## Student Records

Cumulative records are maintained for each student during the period of his attendance at the College, and kept on file thereafter. They include the following data:

1. Complete information regarding the previous education of each student.
2. Personal qualities. Information of this type is assembled confidentially as a means of assisting each student in obtaining greater academic and vocational achievement.
3. College activities. A complete record of each student's participation in the extra-classroom activities of the College is kept and used in recommending the student.
4. Grades. The following system of grading is in use, and except where otherwise specified, applies to both examinations and term work.
  - A Superior work
  - B Good work
  - C Fair work
  - D Lowest passing grade
  - F Condition
  - FF Indicates that the course must be repeated
  - Inc. (Given only when the student, for some good reason, such as protracted illness, has not completed all of the required work of the course.)
  - X Absent from final examination

Grades are issued at the end of each semester.

A student is expected to achieve a C average in the combined work for any one year before advancing into the succeeding year.

In order to receive credit in a course for the semester, the student must not have over four absences in courses meeting for a 130 minute period or over eight absences in courses meeting for a 65 minute period.

## Responsibilities of Students

Students are requested to notify the office of the Director immediately of:

1. Change of address.
2. Change of employment.
3. Inability to attend one or more classes or to do the work in these classes on account of illness, change of place of work, or of working hours.
4. Inability to meet tuition payments.

## **GRADUATION**

### **Graduation Requirements**

Candidates for graduation are recommended by the faculty. These candidates must have completed a three-year curriculum of sixty semester hours. At least fifteen semester hours credit must be completed in the College, irrespective of the amount of credit earned in other institutions.

### **Degree**

The Associate in Science (A.S.) degree is awarded upon the successful completion of one of the curricula in the departments of Engineering, and Business Administration and Accounting. The authority to award this degree was granted by a legislative act of the State of Connecticut. This degree is recognized as the proper designation for an approved technical or scientific course pursued for sixty semester hours.

### **Placement Service**

The College attempts to act as a clearing house for the placement of students. It is constantly re-enforcing its relationships with industrial firms in this area, and as one means to that end is glad to recommend to a prospective employer all those students who meet his requirements and who desire a position or a change of employment.

Before an application for placement is accepted, the student is required to exhaust all the possibilities of advancement in his own company through consultation with his employer regarding such possibilities. Because of this policy of the College, relatively few students change companies; and frequently the employee is called to the attention of his employer. Likewise, the employee also is led to see possibilities within his own organization before unknown to him.

### **Alumni Association**

The Alumni Association holds four regular meetings during the school year. A concise business session precedes a planned program, which is followed by an informal social hour. Several social events are held during the year; a smoker, an outing, and one or two dances. Throughout the winter, members of the alumni meet each Tuesday at the YMCA for an evening in the gymnasium and swimming pool.

Each year an award is made by the Alumni Association to the highest ranking senior of each of the Engineering and Business Administration Departments.

## **STUDENT ACTIVITIES**

The athletic and social activities are under the supervision of the Student Council. This Council is a body of students elected each year as representatives of the Accounting and Business Administration, Engineering, and Pre-College Departments.

### **Physical Privileges:**

Male students are given physical privileges in the New Haven YMCA without cost. Regular students enjoy full privileges. Limited use of the physical equipment is permitted to special students.

For women students, arrangements can be made with the physical department of the YWCA. These arrangements provide for privileges similar to those open to men.

### **"Y" Night:**

Each Friday evening during the winter many students organize for informal competition in indoor sports at the YMCA. The pool attracts those interested in swimming and life saving. Others form squads for basketball games in the gymnasium. Still others play matches for position on a handball ladder.

### **Tennis:**

An annual tennis tournament is conducted with entry open to all college students.

### **Golf:**

Golf shares a part in the physical program during the spring months. The golf tournament, held in May, is the culmination of this activity.

### **Bowling:**

The various departments have bowling teams which are organized into a league. A trophy is presented to the winning team.

## **STUDENT ACTIVITIES**

### **Student Assemblies:**

A program of assemblies is arranged by the Assembly Committee. Speakers are men from business and professional life.

### **The News:**

The "News" is the college newspaper published periodically in the interests of the students and distributed to all students and alumni. Membership on the reporting staff is open to the student body at large.

### **The Engineering Honors Club:**

This organization is composed of those students in the various classes of the Engineering Department who qualify by maintaining a scholastic average of "B" or better. Members must maintain the required scholastic average to hold their membership.

The Club holds monthly meetings at which speakers present for discussion subjects of interest to the student of engineering. Inspection trips through industrial plants are also scheduled by the Club.

### **Business Administration Club:**

Membership in the Business Administration Club is open to the students in the Department of Accounting and Business Administration. The club usually meets at the dinner hour for a discussion of subjects of interest to the student planning to enter business. Representatives from business and industry are invited to participate in the program which is conducted by a student leader.

### **Glee Club:**

The Men's Glee Club has been organized with membership open to the student body. Application for admission may be made to the director of the Glee Club. Several programs are conducted during the year through personal appearances and through radio broadcasting.

### **Agora Club:**

The Agora Club is an organization composed of those who have completed a Public Speaking Course in this institution. The club is self-operating and serves as a means by which members may continue to develop their ability to speak in public.





The library, pictured above, is housed in 114 Winchester Hall. Students are also permitted to use the technical libraries of the School of Engineering and of the Department of Applied Economic Science and Industrial Administration of Yale University.

Students enjoy full privileges of the New Haven YMCA, below. "Y" nights are held during the winter when students may play such games as basketball, volley ball, badminton or handball. Swimming and gym periods are organized.





Extra-curricular activities, including athletics, journalism, music, professional clubs, all-college dances, and the student council provide opportunity for social growth. Swimming is one of many athletic activities for which facilities are provided by the Y.M.C.A.





## **DEPARTMENT OF ACCOUNTING AND BUSINESS ADMINISTRATION**

In the Department of Accounting and Business Administration, the A.S. degree is given at the completion of the three-year programs in Accounting and Business Administration. The courses offered in the freshman and sophomore years are designed to give the background upon which to build more specialized study.

### **The Accounting Course**

This course has been carefully outlined to provide the accounting theory and legal knowledge required of those who are planning to take the state examination for the degree of Certified Public Accountant. It offers also the technical knowledge and related background required of those who wish to qualify as auditors, treasurers, controllers and other similar positions in either public service or private business corporations where thorough accounting training is a requisite.

Definite choice between industrial accounting and public accounting should be made by the junior year. Individual conferences will be arranged through the college office for students who are uncertain as to their aptitudes or who wish to discuss the particular contributions of the courses to their vocational interests.

### **The Business Administration Course**

The curriculum in business administration offers a systematic program of study as a broad foundation for positions of responsibility in the major areas of business activity. These areas include such varied fields as banking, purchasing, selling, merchandising, personnel work, and the business phases of manufacturing. Knowledge of the underlying principles of commerce, finance, and administration is essential to advancement in the fields of business.

Opportunities are being provided in this department for students to explore or extend vocational interests and plans by carrying work on an individualized basis in any of these broad areas.

## DEPARTMENT OF ACCOUNTING AND BUSINESS ADMINISTRATION

### First Year

#### *Fall and Winter*

Accounting 1-2  
Economics 1-2

#### *Spring and Summer*

Law 1-2  
English 1-2 or  
Accounting 1-2

### Second Year

#### *Fall and Winter*

Law 3-4  
Accounting 3-4

#### *Spring and Summer*

Social Problems  
Elective

### Third Year

The work of the third year is made up of courses elected from the subjects required in the major as listed below.

### Required Courses in Majors

#### *Accounting*

Auditing  
Cost Accounting (A 7-8)  
Junior Accounting Problems  
Income Tax Procedure  
Analysis of Financial Reports  
C.P.A. Problems or  
Budgetary Planning and Control

#### *Business Administration*

Budgetary Planning and Control  
Marketing and Sales  
Cost Accounting (A 77)  
Public Speaking

Electives may be chosen from any courses offered in the Department of Accounting and Business Administration. With the approval of the administration a limited number of electives may be chosen from courses offered in other departments of the institution.

## **DEPARTMENT OF ENGINEERING**

The degree of A.S. is given in the Department of Engineering at the completion of any one of the three-year programs. Courses considered essential for the development of general qualities and abilities needed in all branches of engineering are included in each of the engineering curricula. Other courses are offered to provide special training in the technical requirements of the particular branch of engineering.

### **Electrical Engineering**

The object of this course of study is to provide a broad, general training in the fundamental principles and methods which underlie the whole field of electrical engineering. Classes are held in Dunham Laboratory of Electrical Engineering at Yale University, which is well equipped with power machinery, measuring instruments, and apparatus for the study of electrical circuits and electronic phenomena.

### **Industrial Engineering**

This program prepares men for administrative positions, such as production supervisor, department head, foreman, or cost administrator. It provides a general background in engineering techniques, principles of economics, and accepted practices in personnel administration.

### **Mechanical Engineering**

The program in mechanical engineering prepares men for designing various types of machinery and mechanical equipment for analyzing and planning mechanical processes. Laboratory work is integrated with other phases of class procedure as it may be found appropriate to the subject matter. Training is provided in both the technical and administrative work in the mechanical or manufacturing industries.

### **Sales and Service Engineering**

This course makes it possible for the young man in industry to prepare as a salesman and engineering consultant. It develops in the student an understanding of economic principles and business procedures necessary to successful sales relationships. It also gives him an opportunity to secure a general background in engineering which will enable him to understand the engineering problems of his customers.

**DEPARTMENT OF ENGINEERING  
ELECTRICAL . . . MECHANICAL**

**First Year**

*Fall and Winter*

English 1-2  
Mathematics 1-2

*Spring and Summer*

Engineering Problems  
Elective or Mathematics 1-2

**Second Year**

*Fall and Winter*

Mathematics 3-4  
Mechanics

*Spring and Summer*

Strength of Materials  
Electricity 1-2 or  
Engineering Drawing

**Third Year**

The work of the third year is made up of courses elected from the subjects required in the major as listed below.

**Required Courses in Majors**

*Electrical*

Electricity (EE 1-2)  
Electricity (EE 3-4)  
Electricity (EE 5-6)  
Power Plants  
Senior Problems

*Mechanical*

Engineering Drawing  
Machine Design (D 5-6)  
Machine Design (D 7-8)  
Power Plants  
Senior Problems

Electives may be chosen from any courses offered in the Department of Engineering. With the approval of the administration, a limited number of electives may be chosen from courses offered in other departments of the institution.

**DEPARTMENT OF ENGINEERING  
INDUSTRIAL . . . SALES AND SERVICE**

**First Year**

*Fall and Winter*

English 1-2  
Mathematics 1-2

*Spring and Summer*

Engineering Problems  
Elective or Mathematics 1-2

**Second and Third Years**

Because the requirements vary greatly with respect to Industrial and Sales and Service Engineers the number of required courses is limited in the second and third years. Upon completing his basic engineering courses, the student plans, in co-operation with his faculty advisor and representatives of the company in which he is employed, a sequence of courses which will best meet his needs. Below are listed the courses required during this period and certain courses which are recommended.

**Required Courses**

*Industrial Engineering*

Mechanics  
Economics  
Industrial Administration  
Senior Problems  
Personnel Administration

*Sales and Service Engineering*

Mechanics  
Economics  
Marketing and Sales  
Senior Problems

**Recommended Electives**

Law  
Report Writing  
Public Speaking

Industrial Accounting  
Properties of Materials  
Mathematics 3-4

Mechanisms  
Metallurgy  
Psychology

# Description of Courses

## ACCOUNTING

### Elementary Industrial Accounting (A 1-2)

A two semester course. Credit, 5 semester hours.

This course is designed to give a thorough foundation in the elementary phases of accounting. Emphasis is placed on the industrial aspects of accounting rather than the purely theoretical. An introduction to the various techniques of cost accounting is presented and discussed. Considerable time is devoted to principles of corporation accounting including organization procedure, corporate records, and accounting for various types of stock.

Using the above subjects as basis of organization, the course attempts to develop a general theory of accounts, business papers, books of original and final entry, special reserve, accrual accounts, and financial statements.

### Corporation Accounting (A 3-4)

A two semester course. Credit, 5 semester hours.

Foundations are laid for a critical approach to the balance sheet and income statement, their interpretation and construction. Special attention is given to the problem of valuation, especially in connection with the correct presentation of assets and liabilities. The meaning and importance of allowances, reserves, and surplus are also discussed. Since the corporation balance sheet is taken as the model for analysis, the student is introduced to the nature and significance of the capital structure. To give students an opportunity of applying the detailed information covered by the course, it is integrated by an introduction to the preparation and use of statements of the application of funds.

Prerequisite, A 1-2.



**Junior Accounting Problems (A 5-6)**

A two semester course. Credit, 5 semester hours.

This is an intermediate course between second year accounting and C.P.A. Problems. It includes problems in partnership, insurance, fire, life, workmen's compensation, etc.; the statement of affairs in insolvency and bankruptcy; home office and branch office accounting; and consolidated statements of holding and subsidiary companies. The principles of accounting as relating to the above are covered.

Prerequisites, A 3-4. L 3-4 may be taken concurrently with A 5-6 or presented as a prerequisite.

**Cost Accounting (A 7-8)**

A two semester course. Credit, 5 semester hours.

The basic requirements of cost accounting are developed during the first semester. Studies are made of materials, labor, and overhead accounting and control. A complete "Job Order" cost set is worked out by the student. Assignments include various problems encountered in "Specific" or "Job Order" costs. A thorough study is made of cost statements, reports for management, and the control of distribution and selling costs.

The "Process" type of cost systems is developed at the beginning of the second semester. This is followed by a complete survey of "Standard" cost systems used both as "Basic Standards" and "Current Standards". The latest improvements in the application of standard costs to budgetary control are brought out.

Prerequisite, A 3-4.

**Cost Accounting (A 77)**

A one semester course. Credit, 2½ semester hours.

This course is intended for students of business administration. It reviews the various types of cost systems and their use particularly from the executive viewpoint. Cost reports and analysis statements needed in managerial control are stressed. No attempt is made to develop a thorough knowledge of cost accounting.

Prerequisite, A 3-4.

**Auditing (A 9-10)**

A two semester course. Credit, 5 semester hours.

This course includes a consideration of the problems arising in the practice of the professional accountant, particularly with reference to

## ACCOUNTING

balance sheet and general audits. Relationship with the client, the working papers, the audit procedure and program, the accounting principles, the preparation of the report, the ethics of the profession, the procedure to disclose fraud and defalcations, are studied and discussed.

The work of the course will include the study of a textbook and the working of a laboratory set for an audit of a textile manufacturing company. Refinements and changes in audit procedure, resulting from advances in the profession and from criticisms and requirements of such governmental bodies as the Securities and Exchange Commission, are included.

Prerequisite, A 3-4.

### **C.P.A. Problems (A 11-12)**

A two semester course. Credit, 5 semester hours.

This course is an analysis and study of C.P.A. Problems from examinations of state boards of accountancy and the American Institute of Accountants. There is included a study of the principles of municipal accounting with particular reference to the requirements of Connecticut laws and regulations, and the C.P.A. problems in the subject; institutional accounting with reference to methods peculiar to such institutions as colleges, hospitals, etc. A wide variety of problems is included, some of which are worked out under state examination conditions.

Prerequisites, Ec 1-2, A 5, A 16. A 9-10 to be taken concurrently or presented as a prerequisite.

### **Income Tax Procedure (A 13-14)**

A two semester course. Credit, 5 semester hours.

This course embraces a practical application of the principles of the Federal Income Tax Law to concrete situations. The problems include the preparation of corporation, fiduciary, partnership and individual tax returns; claims for refunds, credit and abatement; records, reports, and requirements of Social Security and state and federal unemployment taxes; and the proper accounting procedure for tax records.

Prerequisite, A 7-8.

## BUSINESS LAW (L)

### Law of Contracts and Business Associations (L 1-2)

A two semester course. Credit, 5 semester hours.

Contracts and agency will involve a study of the formation of contracts, capacity of parties, offers and modes of acceptance and other requisites; performance of contracts, conditions upon duty to perform, and discharge; the appointment of agents, and the creation of agency; the employment contracts; power of agent to bind his principal in dealings with third parties; duties of agent and principal to one another.

Business Associations will involve the law relating to the formation and operation of the unusual types of business organizations, the rights and liabilities of partners among themselves and their relations to third parties, dissolution of partnership, limited partnership, the business trust, promotion and organization of corporations, the conduct of corporate affairs in their relation to the rights of stockholders and creditors.

### Law of Sales (L 3)

A one semester course. Credit, 2½ semester hours.

The study of sales involves a detailed consideration of the laws governing the rights of parties engaged in the transfer of personal property. This covers questions of title, risks assumed, rights of creditors, express and implied warranties, buyers' and sellers' remedies, together with the business background out of which such relations arise.

Prerequisite, L 1-2.

### Law of Commercial Paper and Bankruptcy (L 4)

A one semester course. Credit, 2½ semester hours.

This course treats of promissory notes, checks and bills of exchange with an analysis of their form and function in commercial transactions. A short survey is made of the National Bankruptcy (Chandler) Act.

Prerequisite, L 1-2.

## DRAWING AND DESIGN (D)

Students registering in drawing differ greatly in their previous training and experience in this field. Instruction is largely in terms of individuals and small groups. In mechanical drawing the work has been divided into three classifications. Drawing 1-2 is planned for the student with little or no previous work in this field. Drawing 1-2a is open to the young man who is familiar with elementary drawing techniques. Drawing 3-4 is an advanced course. Any one of these three classes meets the drawing requirements of the Mechanical Engineering program outlined on page 28.

### Engineering Drawing (D 1-2)

A two semester course. Credit, 5 semester hours.

This is an elementary course in engineering drawing designed to teach the use of instruments, the fundamental principles of projection, drafting room standards and conventions, lettering, selection and use of scales, orthographic projections, revolutions, developed surfaces, intersections and auxiliary views, and the making and dimensioning of complete working drawings of simple machine parts.

### Engineering Drawing (D 1-2a)

A two semester course. Credit, 5 semester hours.

This course is open to students familiar with the elementary techniques of drafting. The material covered is similar to that of Drawing 1-2. However, some of the work given during the first weeks in Drawing 1-2 is eliminated. This allows time to cover the first part of Drawing 3-4.

Admission by permission of instructor.

### Engineering Drawing (D 3-4)

A two semester course. Credit, 5 semester hours.

This course is designed to develop the student's ability to visualize the assembly of machine parts. The work covers a review of the fundamentals of drafting, additional theory of orthographic projections and perspective sketchings, the making of detail and assembly drawings of simple machines involving the use of simple screw gear and level mechanisms.

Prerequisite, D 1-2.

### **Elementary Machine Design (D 5-6)**

A two semester course. Credit, 5 semester hours.

This course considers the analysis and design of such elements as fastenings, bearings, gears, shafts, clutches, pulleys and cams. Some machine parts are studied from the standpoint of kinematics, and their motions are analyzed.

Prerequisites, D 1-2, EM 1-2.

### **Advanced Machine Design (D 7-8)**

A two semester course. Credit, 5 semester hours.

The elements of machine design studied in the first year are unified in the complete design, by each student, of a punch press or other machine. Advanced problems, such as balancing and critical speeds, are considered the latter part of the year.

Prerequisites, D 5-6, EM 3-4.

## **ECONOMICS AND SOCIOLOGY (Ec)**

### **Economics (Ec 1-2)**

A two semester course. Credit, 5 semester hours.

Economics takes for its field the study of principles, institutions and practices by which people gain a livelihood. The course consists of a brief survey of economic history; a study of the institutions through which economic activities are carried on; and a detailed examination of the principles and processes bearing upon production, exchange and consumption, both in relation to the individual enterprise and to society at large.

Prerequisite, E 1-2.

### **Social Problems (Ec 5-6)**

A two semester course. Credit, 5 semester hours.

This course is designed for mature students who may feel the need for a better understanding of present day social trends, social problems, and social programs. Much emphasis is placed upon two chief objectives: (1) to develop a critical, reliable technique of thinking through present day problems; (2) to understand fully the facts and arguments behind all proposals for social reform. Problem areas considered in the course

## ECONOMICS AND SOCIOLOGY

include the family, population changes, health, labor, conservation, agriculture, housing, crime, education, international relations, private capitalism, fascism, communism, and socialism.

### **Industrial Management (Ec 7)**

A one semester course. Credit, 2½ semester hours.

This course deals particularly with directing the application of the forces of labor and machinery to materials for the efficient production of the commodity. The following subjects are considered: history of industry, factors affecting industrial growth, ownership of industry, organization and policies, plant location and arrangement, planning and control of production, operation analysis, purchasing and stores, industrial accounting as a tool of management, wage payment systems, executive reports, mechanization of industry, and the economics of management. A text is used as a basis for the work, but the course is strong in practical applications of the basic principles of management taken from current industrial practice.

### **Personnel Administration (Ec 8)**

A one semester course. Credit, 2½ semester hours.

Emphasis is given to the new and progressive employee-employer relationships. The following subjects are considered: the nature of personnel problems, development of labor relations, psychological aspects of labor relations, job analysis, aptitude tests, hiring the worker, labor turnover, education and training of employees, industrial health and safety, working hours and conditions, stabilization of employment, the aged worker, the security of the worker, labor unions, collective bargaining, wages and wage-payment, National Labor Relations Act. In addition to a basic text, collateral reading on current industrial relations is used to provide a contemporary background for class discussion in this rapidly moving phase of industry.

### **Marketing and Sales (Ec 9-10)**

A two semester course. Credit, 5 semester hours.

This course deals with the principles and problems involved in the distribution of merchandise. There is a study of the basic structure of markets and the functions of assembling, grading, storing, financing, and transporting goods. A study is made of techniques utilized in marketing analysis and sales practices.

(Omitted 1943-1944.)



**Sales and Advertising (Ec 11-12)**

A two semester course. Credit, 5 semester hours.

This course is designed to teach the fundamental principles of sales methods. It covers a thorough understanding of the importance of "knowledge of product," pre-approach, approach, presentation, technique of sales argument, quotation procedure, demonstration methods, credit investigation, meeting sales resistance, transportation and delivery facilities, discount practice, routing, technique of close. Those at present engaged in sales work and those contemplating taking up selling as a profession will find the course of equal value.

The advertising emphasis deals with the various media used in local and national advertising programs.

(Omitted 1943-1944.)

**Budgetary Planning and Control (Ec 13-14)**

A two semester course. Credit, 5 semester hours.

This course is designed to meet the growing demand of business and government for increased knowledge of how to plan operations and how to set up the requirements of those operations in simple but orthodox accounting form. The first semester is devoted to the development of the theoretical background of the master and subsidiary budgets, their nature, purpose, advantages, and limitations. A study of co-ordinated financial policy based upon budgetary control concludes the first semester's study.

Emphasis is given to laboratory work in the second semester. Sample budgets in both the private and public field are constructed and co-ordinated. Deductions and recommendations resulting therefrom are set up in accompanying reports.

Prerequisite, A 1-2.

**ELECTRICITY (EE)****Direct Current Circuits and Machinery (EE 1-2)**

A two semester course. Credit, 5 semester hours.

Fundamental theory of electric and magnetic circuits and its application to direct current machinery are considered. The course includes laboratory work in measurements of electrical quantities and characteristics of direct current motors and generators.

Prerequisite, M 1-2.

## ELECTRICITY

### **Alternating Current Circuits (EE 3-4)**

A two semester course. Two and one-half hours a week throughout the year. Credit, 5 semester hours.

Fundamental theory of single phase and polyphase alternating current circuits, instruments and measurements is considered. Suitable laboratory work is included.

Prerequisites, EE 1-2, M 3-4.

### **Alternating Current Machinery (EE 5-6)**

A two semester course. Credit, 5 semester hours.

This course deals with the fundamental principles of alternating current machinery and an introduction to the theory of electronic tubes, with emphasis on the industrial and economic aspects of their application. About one-quarter of the time is devoted to laboratory work.

Prerequisite, EE 3-4.

### **Advanced Electricity (EE 7-8)**

A two semester course. Credit, 5 semester hours.

This is a continuation and an extension of the undergraduate electrical courses with emphasis on laboratory practice. Its content is standard commercial tests and precise laboratory measurements together with sufficient classroom and library study for their understanding.

The subject matter and progress is determined in a large part by the students. (Omitted 1943-1944.)

*Admission to the course by permission of Dr. Bethel and Dr. Beck.*

### **Survey of Electrical Engineering (EE 9-10)**

A two semester course. Credit, 5 semester hours.

The emphasis in this course is placed on the industrial application of the principles of electrical engineering. The operating characteristics of electrical devices are studied. The method of instruction includes recreation, lecture, computation, and laboratory periods in circuits, machinery, and thermionics. (Omitted 1943-1944.)

Prerequisite, M 1-2.

## ENGINEERING MECHANICS (EM)

### Mechanics (EM 1-2)

A two semester course. Credit, 5 semester hours.

In the first semester, the theory and application of the principles of static equilibrium, stress in framed structures, center of gravity and movement of inertia; force, mass and acceleration, and friction are studied.

In the second semester, rectilinear and curvilinear motion; work, power and energy; impulse and momentum; and a practical study of machine elements and problems in machine design are considered.

Prerequisite, M 1-2.

### Strength of Materials (EM 3-4)

A two semester course. Credit, 5 semester hours.

This course considers the theory of stress and resistance of materials; stress distribution in riveted joints, shafts, beams, and columns; principal stresses; laboratory practice in materials testing; hardness, fatigue and impact strength; and problems in machine design and building construction.

Prerequisite, EM 1-2.

### Mechanisms (EM 5)

A one semester course. Credit, 2½ semester hours.

Mechanism is a study of the motions of the parts of machines and the transmission of forces in these machines. It is a basic course giving the student an insight into the kinematics of any machine. It is both mathematical and graphical in character. (Omitted 1943-1944.)

Prerequisite, EM 1-2.

## ENGLISH (E)

### English (E 1-2)

A two semester course. Credit, 5 semester hours.

The aim of this course in English is to improve the student's abilities in reading, writing, speaking, and thinking. The material chosen for reading is in the field of modern literature and is intended particularly to

## **MATHEMATICS**

broaden the student's understanding of contemporary life and affairs. The writing assignments include short papers, reports, and letters. Oral discussion, vocabulary building, and speech-making receive adequate attention. In all phases of the work, proper emphasis is given to clear and accurate thinking on the part of the student.

### **Public Speaking (E 3-4)**

A two semester course. Credit, 5 semester hours.

The object of this course is to improve the student's ability to talk correctly and forcefully. It is designed to meet the needs of any person whose business or social activities require him to converse informally or to speak before an audience. During the course the student prepares and delivers his own talks on subjects in which he is interested.

The course teaches self-confidence, good enunciation, correct English, the use of gestures, platform etiquette, preparation of speech material, effective delivery, and audience psychology. Persons taking the course are aided by a text, class lectures, practice in various types of speaking, class exercises, and helpful criticism.

## **MATHEMATICS (M)**

### **Mathematics (M 1-2)**

A two semester course. Credit, 5 semester hours.

The two-year course in mathematics is designed to be one of continuous development. Mathematics 1-2 is the basis of what follows during the second year. Here, the student learns to state known information about related quantities in mathematical form and to apply operations already learned to this statement so as to obtain new information. The fundamental ideas are illustrated by reviewing topics studied in algebra and geometry. Then the necessity of the limit operation is motivated and its basic consequences considered. Subsequently the general ideas of the differential and integral calculus are developed.

### **Mathematics (M 3-4)**

A two semester course. Credit, 5 semester hours.

A short time is spent reviewing the concept of limit of a function. The work then proceeds to the consideration of the application of the

calculus to problems in geometry and the physical sciences. Among the applications considered is the use of differential equations of the second order with constant coefficients.

Prerequisite, M 1-2.

## **METALLURGY (Mt)**

### **Properties of Materials (Mt 1)**

A one semester course. Credit, 2½ semester hours.

The aim of this course is to familiarize the student with the important properties of metals and materials, and the principal tests used in their determination. It seeks to give an insight into the adaptability of materials for particular products. (Omitted 1943-1944.)

Prerequisite, EM 1-2.

### **Metallurgy (Mt 2)**

A one semester course. Credit, 2½ semester hours.

This is an elementary survey of metallurgy involving the laboratory analysis of metals, a study of their internal structure and composition, and how these are changed by strains, heat, and applied forces.

(Omitted 1943-1944.)

## **PROJECTS (Pr)**

### **Engineering Problems (Pr 1-2)**

A two semester course. Credit, 5 semester hours.

This is an elementary course covering some of the fundamentals of several branches of engineering. It includes use of the slide rule, applied mathematics, and graphical methods of presentation and analysis.

The second semester consists mainly of a course in problems based on engineering principles, supplemented by discussion periods and lectures. The course serves to orient the student and helps to present a survey of the engineering profession, so that he may better understand the methods of thought and work. The aim is to develop in the student a habit of using correct methods of thinking and analysis in the solution of engineering problems.

## PSYCHOLOGY

### Senior Problems (Pr 3-4)

A two semester course. Credit, 5 semester hours.

This is a course designed for seniors in the various engineering curricula. Carefully chosen problems which involve many phases of engineering constitute the background of the course. Every attempt is made to deal with the problems in detail as they would be treated in engineering practice. Several instructors collaborate in the presentation and discussion of the various phases of the work.

*Open to seniors only.*

### Power Plants (Pr 5-6)

A two semester course. Credit, 5 semester hours.

This course aims to acquaint the student with the equipment of power plants, fuel and combustion, characteristics of power-producing apparatus, and the recovery of waste heat. The various types of power plant apparatus are studied. While the course deals primarily with steam power, hydraulic and internal-combustion machines are also discussed.

Prerequisite, Em 1-2.

## PSYCHOLOGY (P)

### Industrial Psychology (P 1-2)

A two semester course. Credit, 5 semester hours.

This course is designed for those students who desire a better understanding of human behavior and the way personality operates in a world of other personalities. A brief survey is made of the psychological foundations of individual behavior, personality, and group participation, personality and subjective patterns, and the characteristics of group behavior. The course purposes to help students relate the principles of psychology to contemporary problems of business and industry.

(Omitted 1943-44.)



# Pre-College Department

## Function

The primary function of these courses is to supplement previous education in order to prepare for college courses in business and engineering.

## Fees, Tuition, Student Records, Responsibilities of Students

Tuition charges and student privileges and responsibilities are identical with those of the students in any of the other departments of the Junior College.

# Description of Courses

## English

A two semester course.

This course is intended to meet the immediate needs of the student, whatever his previous preparation in the subject may have been. Special work is prescribed for those whose preparation is inadequate or for those who show need of review. The objectives of the course are: first, to teach the student the fundamental principles upon which good English is based; second, to give him practical experience in the use of English by written and oral drill; third, to improve by exercise his vocabulary and diction; and finally, to awaken his interest in several fields of American and English literature.

## PRE-COLLEGE COURSES

### Mathematics A-B

A four semester course.

Plane geometry and algebra are taught as one continuous course with emphasis on the algebra. The work in algebra includes the following topics: factoring, fractions, theory of equations, law of exponents, inequalities, ratio and proportion, problems, and many simple applications from physics. The principal propositions in plane geometry are discussed and proved, as far as possible, by the use of algebra. Special emphasis is given to the solutions of originals in plane geometry.

*Admission to the course is on the basis of the high school record and the general examination required of all entering students.*

### Socio-Industrial Trends

A two semester course.

This course represents a break with traditional subject areas in that important events in the development of the United States are taught in relation to current trends. Basic background information essential for the student who anticipates entering business and industry is studied. Units offered in the course include: (1) new and old economic patterns, (2) growth of industry and agriculture, (3) labor and management, (4) income and wealth, (5) modern taxation, (6) contributions of science, (7) population trends, (8) new culture patterns, (9) citizenship, and (10) war and peace aims. A brief survey of American political history is included for students desiring to prepare for the state high school equivalency examinations.

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## NOTES





# Section of New Haven Showing Location of Buildings Used by New Haven College and Preparatory School

## Yale University Buildings

1. Winchester Hall
2. North Sheffield
3. Eng. Mechanics
4. Dunham Lab.
5. Mason Lab.
6. Hammond Lab.
7. Sterling Chemistry Laboratory

## OTHER BUILDINGS

8. Y.M.C.A.
9. Yale Coop
10. New Haven Public Library

